

**Claims**

What is claimed is:

1. A method for implementing intelligent spin-up for a disk drive comprising the steps of:
  - 3 receiving a command;
  - 4 checking for a disk drive start command;
  - 5 responsive to identifying said disk drive start command, checking a no-start flag; and
  - 7 responsive to identifying said no-start flag being set, returning an error code without starting said disk drive.
1. 2. A method for implementing intelligent spin-up for a disk drive as recited in claim 1 includes the step of starting said disk drive only responsive to identifying said no-start flag not being set.
1. 3. A method for implementing intelligent spin-up for a disk drive as recited in claim 2 includes the steps of monitoring said disk drive to identify a disk drive fault.
1. 4. A method for implementing intelligent spin-up for a disk drive as recited in claim 3 includes the step responsive to identifying said disk drive fault, of checking whether said identified disk drive fault is a predefined dead device fault.
1. 5. A method for implementing intelligent spin-up for a disk drive as recited in claim 4 includes the step of responsive to identifying said predefined dead device fault, setting said no-start flag and storing said error code.
1. 6. A method for implementing intelligent spin-up for a disk drive as recited in claim 4 wherein the step of checking whether said identified disk drive fault is said predefined dead device fault includes the step of comparing a unit error code of said identified disk drive fault with a plurality of predefined dead device (DD) unit error codes (UECs) to identify a match.

1           7.    A method for implementing intelligent spin-up for a disk drive  
2    as recited in claim 1 further includes the steps of identifying a predefined  
3    dead device fault, setting said no-start flag, setting a no-load flag and storing  
4    said error code.

1           8.    A method for implementing intelligent spin-up for a disk drive  
2    as recited in claim 7 includes the step responsive to receiving said command  
3    with said disk drive running and said transducer heads not being loaded,  
4    checking said no-load flag.

1           9.    A method for implementing intelligent spin-up for a disk drive  
2    as recited in claim 8 includes the step responsive to identifying said no-load  
3    flag being set, stopping said disk drive and returning said error code.

1           10.   Apparatus for implementing intelligent spin-up for a disk drive  
2    comprising:  
3         a disk drive controller; said disk drive controller responsive to  
4    receiving a disk drive start command, for checking a no-start flag;  
5         said disk drive controller responsive to identifying said no-start flag  
6    being set, for returning an error code without starting said disk drive; and  
7         said disk drive controller for starting said disk drive only responsive to  
8    said no-start flag not being set.

1           11.   Apparatus for implementing intelligent spin-up for a disk drive  
2    as recited in claim 10 wherein said disk drive controller for monitoring said  
3    disk drive to identify a predefined dead disk drive fault; and said disk drive  
4    controller responsive to identifying a predefined dead disk drive fault, for  
5    setting said no-start flag, and for storing said error code.

1           12.   Apparatus for implementing intelligent spin-up for a disk drive  
2    as recited in claim 10 wherein said disk drive controller responsive to  
3    identifying a predefined dead disk drive fault, for setting a no-load flag.

1           13. Apparatus for implementing intelligent spin-up for a disk drive  
2 as recited in claim 10 wherein said disk drive controller responsive to  
3 identifying said no-load flag being set with said disk drive running and  
4 transducer heads not being loaded, for stopping said disk drive and returning  
5 said error code.

1           14. A computer program product for implementing intelligent spin-  
2 up for a disk drive, said computer program product including a plurality of  
3 computer executable instructions stored on a computer readable medium,  
4 wherein said instructions, when executed by a disk drive controller in the  
5 disk drive, cause the disk drive controller to perform the steps of:

6            receiving a command;  
7            checking for a disk drive start command;  
8            responsive to identifying said disk drive start command, checking a  
9 no-start flag;  
10            responsive to identifying said no-start flag being set, returning an error  
11 code without starting said disk drive; and  
12            starting said disk drive only responsive to identifying said no-start flag  
13 not being set.

1           15. A computer program product for implementing intelligent spin-  
2 up for a disk drive as recited in claim 14 wherein said instructions, when  
3 executed by a disk drive controller in the disk drive, further cause the disk  
4 drive controller to perform the steps of:

5            monitoring said disk drive to identify a predefined dead disk drive  
6 fault; and  
7            responsive to identifying a predefined dead disk drive fault, setting  
8 said no-start flag, setting a no-load flag and storing said error code.

1           16. A computer program product for implementing intelligent spin-  
2 up for a disk drive as recited in claim 15 wherein said instructions, when  
3 executed by a disk drive controller in the disk drive, further cause the disk  
4 drive controller to perform the steps of:

5            receiving said command with said disk drive running and transducer  
6 heads in said disk drive not being loaded; and  
7            responsive to identifying said no-load flag being set, stopping said  
8 disk drive and returning said error code.